

Replacement Page

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The present invention is directed to improving utilization in a peer-to-peer network. Each node in a peer-to-peer network is assigned a number of preferably fixed-size storage slots proportional to the node storage, a first portion of which is allocated to storage zones and a second portion of which is allocated as a free slot reserve. In accordance with an embodiment of an aspect of the invention, this split of a storage zone is delayed until the storage zone becomes full, referred to herein as "lazy splitting". In accordance with an embodiment of another aspect of the invention, it is advantageous to allocate more storage slots at a node than its actual physical capacity referred to herein as "oversubscription". In accordance with an embodiment of another aspect of the invention, each physical node is allocated at least one storage zone, even as a new node is added to the system.